

**What Is Claimed Is:**

1           1.       A method to facilitate suspending threads in a platform-  
2 independent virtual machine implemented on an operating system that lacks a  
3 global mechanism for suspending threads, comprising:  
4           executing a thread requiring other threads to be suspended;  
5           changing a scheduling policy for the thread; and  
6           raising a priority of the thread to a highest available priority, whereby  
7 changing the scheduling policy and raising the priority of the thread causes the  
8 thread to run to completion while other threads do not run.

1           2.       The method of claim 1, further comprising:  
2           upon completion of the thread,  
3                        reducing the priority of the thread to an assigned priority;  
4           and  
5                        returning the scheduling policy of the thread to an assigned  
6           scheduling policy.

1           3.       The method of claim 1, wherein the thread requiring other threads  
2 to be suspended includes a garbage collection thread.

1           4.       The method of claim 1, wherein changing the scheduling policy for  
2 the thread includes changing the scheduling policy from round-robin to first-in,  
3 first-out.

1           5.       The method of claim 1, wherein the operating system that lacks the  
2 global mechanism for suspending threads includes POSIX.

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1           6.        The method of claim 1, wherein the platform-independent virtual  
2 machine includes a JAVA VIRTUAL MACHINE™.

1           7.        The method of claim 1, further comprising performing a garbage  
2 collection with the thread.

1           8.        A computer-readable storage medium storing instructions that  
2 when executed by a computer cause the computer to perform a method to  
3 facilitate suspending threads in a platform-independent virtual machine  
4 implemented on an operating system that lacks a global mechanism for  
5 suspending threads, the method comprising:  
6                executing a thread requiring other threads to be suspended;  
7                changing a scheduling policy for the thread; and  
8                raising a priority of the thread to a highest available priority, whereby  
9 changing the scheduling policy and raising the priority of the thread causes the  
10 thread to run to completion while other threads do not run.

1           9.        The computer-readable storage medium of claim 8, the method  
2 further comprising:  
3                upon completion of the thread,  
4                        reducing the priority of the thread to an assigned priority;  
5                and  
6                        returning the scheduling policy of the thread to an assigned  
7                scheduling policy.

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1           10.    The computer-readable storage medium of claim 8, wherein the  
2 thread requiring other threads to be suspended includes a garbage collection  
3 thread.

1           11.    The computer-readable storage medium of claim 8, wherein  
2 changing the scheduling policy for the thread includes changing the scheduling  
3 policy from round-robin to first-in, first-out.

1           12.    The computer-readable storage medium of claim 8, wherein the  
2 operating system that lacks the global mechanism for suspending threads includes  
3 POSIX.

1           13.    The computer-readable storage medium of claim 8, wherein the  
2 platform-independent virtual machine includes a JAVA VIRTUAL MACHINE™.

1           14.    The computer-readable storage medium of claim 8, the method  
2 further comprising performing a garbage collection with the thread.

1           15.    An apparatus that facilitates suspending threads in a platform-  
2 independent virtual machine implemented on an operating system that lacks a  
3 global mechanism for suspending threads, comprising:

4            an executing mechanism that is configured to execute a thread requiring  
5 other threads to be suspended;

6            a changing mechanism that is configured to change a scheduling policy for  
7 the thread; and

8            a priority raising mechanism that is configured to raise a priority of the  
9 thread to a highest available priority, whereby changing the scheduling policy and

10 raising the priority of the thread causes the thread to run to completion while other  
11 threads do not run.

1 16. The apparatus of claim 15, further comprising:  
2 a priority reducing mechanism that is configured to reduce the priority of  
3 the thread to an assigned priority; and  
4 a returning mechanism that is configured to return the scheduling policy of  
5 the thread to an assigned scheduling policy.

1 17. The apparatus of claim 15, wherein the thread requiring other  
2 threads to be suspended includes a garbage collection thread.

1 18. The apparatus of claim 15, wherein changing the scheduling policy  
2 for the thread includes changing the scheduling policy from round-robin to first-  
3 in, first-out.

1 19. The apparatus of claim 15, wherein the operating system that lacks  
2 the global mechanism for suspending threads includes POSIX.

1 20. The apparatus of claim 15, wherein the platform-independent  
2 virtual machine includes a JAVA VIRTUAL MACHINE™.

1 21. The apparatus of claim 15, further comprising a garbage collection  
2 mechanism that is configured to perform a garbage collection with the thread.